

Jessie Mine and Mill (then)



Jessie Mine and Mill (now)



Jessie Mine Adit

- Discharge-< 1 gpm
- pH - 7.04
- Zinc – 8,200 µg/L
- Iron – 1,400 µg/L
- Mn – 4,600 µg/L



Jessie Mine Waste Rock

Results



- Arsenic – 150 mg/kg
- Cadmium – 350 mg/kg
- Copper – 560 mg/kg
- Lead – 8,200 mg/kg
- Mercury – 45 mg/kg
- Zinc – 26,000 mg/kg

Jessie Mine/Gold Run Gulch

Sample Results

SURFACE WATER

- Cadmium – 12 $\mu\text{g/L}$ (7.0*)
- Zinc – 1,800 $\mu\text{g/L}$ (180*)

SEDIMENTS

- Mercury- 2.3 mg/kg
- Cadmium – 5.8 mg/kg
- Zinc – 830 mg/kg

*Acute Table Value Standard



Union Mill



Union Mill



- Present on land administered by the USDA Forest Service.
- Development is encroaching on pile.
- Materials are readily accessible to public.
- Pile shows signs of use by off-road vehicles.

Union Mill Results (mg/kg)



Sample Results

- Lead – 2,430
- Copper – 520

RMC (Camper)

- Lead – 1,000
- Copper – 5,000

RMC (Wildlife)

- Lead – 125
- Copper – 136

Soil Screening (Res)

- Lead – 400
- Copper – 2,800

Claim Jumper (USFS Parcel M)



Claim Jumper Results (mg/kg)

Sample Results

- Arsenic – 2,900
- Lead – 76,000

Residential Screening

- Arsenic – 22
- Lead - 400



Extent of Past Investigations

EPA and CDPHE have conducted sampling and data collection at five separate mine and mill sites in Summit County:

B&B Mines Properties

- Wellington-Oro
- IXL/Royal Tiger
- Jessie Mine and Mill

USFS Administered Properties

- Union Mill Site
- Claim Jumper Parcel

CDPHE Site Assessment and Brownfields Role

- CDPHE was asked by Summit County and Breckenridge to assess properties under the Site Assessment Program to determine their potential for National Priorities List nomination and assist these entities in evaluating their potential CERCLA liability if they initiated a purchase of the B&B Mines property.

Activities to Date

- EPA and B&B Mines have conducted EE/CA's for the Wellington-Oro Mine site.
- B&B Mines performed some limited surface reclamation at the Wellington-Oro site.
- CDPHE has completed additional Draft Targeted Brownfields Assessments (TBA's) in EE/CA format for both the IXL/Royal Tiger and Jessie Mine and Mill sites.
- CDPHE has completed EE/CA's for the Union and Claim Jumper sites outlining removal alternatives and associated costs.

Future Activities

- EPA intends to design the Wellington-Oro water treatment system in Spring 2004.
- Cleanups at the IXL/Royal Tiger and Jessie Mine and Mill sites are contingent upon successful negotiation between B&B Mines, Summit County, and Breckenridge for purchase of the property.
- CDPHE will conduct a removal at the Union Mill this Summer funded by the USDA Forest Service.
- Depending upon funding, CDPHE will conduct a similar removal at the Claim Jumper Parcel for USDA Forest Service.

Cost Estimates/Schedule

- Costs for the Jessie range from \$165,000 to \$550,000;
- Costs for the IXL/Royal Tiger range from approximately \$500,000 to \$1.8 Million;
- Costs for the Wellington-Oro semi-passive water treatment system range from approximately \$5 million to \$7 million.
- Summit County, Breckenridge and B&B Mines are attempting to complete the agreement for purchase of 1,800 acres by June 2004.

Historic Economic Base



Current Economic Base



For more information or for copies of this presentation, please contact either:

Joe Vranka

303.692.3402

joe.vranka@state.co.us

or

Kevin Mackey

303.692.3426

kevin.mackey@state.co.us

Colorado Department of Public Health and
Environment